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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,774	11/21/2003	Michael Childs	702.307	1580

7590 06/28/2004  
Devon A. Rolf  
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EXAMINER

ZANELLI, MICHAEL J

ART UNIT	PAPER NUMBER
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3661

DATE MAILED: 06/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/718,774

Applicant(s)

CHILDS ET AL.

Examiner

Michael J. Zanelli

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/22/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. This application is a Continuation of S.N. 10/032,033, filed 12/21/01. Claims 1-20 are pending.
2. An application in which the benefits of an earlier application are desired must contain a specific reference to the prior application(s) in the first sentence of the specification or in an application data sheet (37 CFR 1.78(a)(2) and (a)(5)). The specific reference to any prior nonprovisional application must include the relationship (i.e., continuation, divisional, or continuation-in-part) between the applications except when the reference is to a prior application of a CPA assigned the same application number.

3. The IDS filed 3/22/04 has been considered.

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-3, 15, 16 and 18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over at least claims 1, 7, 13 and 19 of U.S. Patent No. 6,675,093. Although the conflicting claims are not identical, they are not patentably distinct from each other because the more narrower patent claims incorporate the

Art Unit: 3661

subject matter of the broader application claims. For example, patent claim 1 includes a navigation device comprising a processor, memory and display in which the memory includes a data structure for dynamically generating a route path to a destination by manipulating the data structure whereas application claim 1 includes a navigation device comprising a processor a memory and a data structure residing in the memory for dynamically generating a route path to a destination by manipulating the data structure. Application claim 2 sets forth a display for displaying the route path.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 7, 15, 18 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Galkowski et al. (6,259,988).

A. As per claims 1 and 15, Galkowski discloses processor-based route planning used in conjunction with navigational devices. The patent describes the well known A\* search algorithm used in conjunction with a data structure (heap). The heap is a priority queue in which elements (nodes) are sorted based on cost. Galkowski further discloses selecting the minimum cost node (i.e., root node location) from the heap data structure and storing it in order to construct the final route from a starting location to a destination via the selected nodes (col. 7, line 27 to col. 9, line 42).

Art Unit: 3661

B. As per claims 7, 18 and 20, as above wherein a second data structure is used to store the determined route (col. 7, line 27 to col. 9, line 42) and is used in navigation systems (col. 1, 11-14).

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 2-6, 8, 10-14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Galkowski et al. in view of DeLorme et al. (6,321,158).

A. As per claims 2-6, 8, 10-14 and 17, Galkowski is applied as above wherein the patent discloses the manner in which a route path is determined and the general application to navigation systems. The determined route path would have been presumably output in a form usable by an operator to reach a desired destination.

Claims 2-6, 8, 10-14 and 17 are directed to specific means of outputting this information and specific devices for allowing one to determine location information.

B. DeLorme discloses a navigation device, such as a GPS-enabled PDA (Fig. 1A1, 1A3), used to guide a user to a desired destination (col. 13, lines 9-11; col. 14, lines 1-8). The PDA of DeLorme includes a display for displaying the travel route, maps, point locations, etc. and an audio output for providing guidance information (col. 13, lines 9-32; col. 14, lines 60-64; Abs.). One of ordinary skill in the art of navigation would have found it obvious to embody the route determining techniques of Galkowski in the PDA of the type disclosed by DeLorme because it would have provided a means of determining location information as well as provided a means of outputting navigation data to the user.

10. Claims 9 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Galkowski et al. in view of DeLorme et al. and Hayashi et al. (6,477,526).

A. As per claims 9 and 19, Galkowski and DeLorme are applied as above. The claimed invention differs in that the route is determined at a remote location and accessed by a PDA via a communication channel (i.e., wireless channel). However, DeLorme does suggest providing a transceiver in the PDA for communicating with an external computer (col. 8, lines 41-45).

B. Hayashi discloses a route calculation server in which a user requests a route from a start location to a destination via a wireless communication network (Abs.; col. 5, lines 13-37). Hayashi suggests an alternative method of calculating the route in which the route calculating software and map information are stored at a remote site

rather than a navigation device, thus reducing required processing power and/or memory storage. One of ordinary skill in the art would have found it obvious to implement the route planning of Galkowski at a remote server site as suggested by Hayashi whereby reduced processing power and memory would have been an obvious advantage.

11. Claim 16 is distinguishable because the computer-readable medium as set forth in base claim 15 is embodied as a treap data structure. The inclusion of this feature was one reason why the claims of the parent application were allowed.

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited patent describes a PDA with GPS receiver.

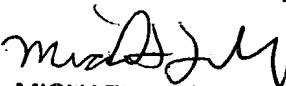
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Zanelli whose telephone number is (703) 305-9756. The examiner can normally be reached on Monday-Thursday 5:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Black can be reached on (703) 305-8233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3661

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/mjz

  
**MICHAEL J. ZANELLI**  
**PRIMARY EXAMINER**